

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

FILIN	IG DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
01/1	1/2001	Ralph H. Echols	2000-IP-001727	8980
590	02/04/2003			
ith, Esq.			574.110	
			EXAMI	NER
,			CECIL, TH	ERRY K
ral ExPwy	,			
74			ART UNIT	PAPER NUMBER
			1723	ill
			DATE MAILED: 02/04/2003	1-1
	01/1 590 ith, Esq. nith, P.C. ral ExPwy	ith, Esq. nith, P.C. ral ExPwy	01/11/2001 Ralph H. Echols 590 02/04/2003 ith, Esq. nith, P.C. ral ExPwy	01/11/2001 Ralph H. Echols 2000-IP-001727 890 02/04/2003 ith, Esq. nith, P.C. CECIL, TR ral ExPwy 074 ART UNIT

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No. 09/758,625 ECHOLS ET AL. Examiner Art Unit Mr. Terry K. Cecil 1723 The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION Extensions of time may be available under the provisions of 37 CPR 1.136 (a). In no event, however, may a reply be timely filed and the shorted for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHY (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory maximum of the statutory minimum of the provision of the second and
Examiner Art Unit Mr. Terry K. Cecil Art Explained Application FROM The Art Unit Mr. Terry K. Cecil Art Cecil Art Cecil Art Cecil Art Carl Art Unit Mr. Terry K. Cecil A Hord Carl Art Unit Mr. Terry K. Cecil A Hord Carl Art Unit Mr. Terry K. Cecil A Hord Carl A Hord Carl Art Unit Mr. Terry K. Cecil A Hord Carl A Hord Carl A Hord Mr. Art Unit Art Unit Hord Carl Art Unit Art Unit Hord Carl Art Unit Art Unit Hord Carl Art Unit Hord
Examiner Mr. Terry K. Cecil The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply is specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) ☑ Responsive to communication(s) filed on 13 January 2003. 2a) ☐ This action is FINAL. 2b) ☑ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ☑ Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-63 is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) is/are objected to. 8) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) is/are objected to.
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILLING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply is specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Faiture to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S. C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 13 January 2003. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-15 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ③ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S. €, \$133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 13 January 2003. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.
THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above, its maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 13 January 2003. 2a) Responsive to communication (s) filed on 13 January 2003. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are objected to. 8) Claim(s) is/are objected to.
This action is FINAL. 2b) ☐ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ☐ Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-15 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claims are subject to restriction and/or election requirement.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-15 is/are rejected. 7) Claim(s) is/are objected to. 8) Claims are subject to restriction and/or election requirement.
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-15 is/are rejected. 7) Claim(s) is/are objected to. 8) Claims are subject to restriction and/or election requirement.
4) Claim(s) 1-15,38-54 and 68-83 is/are pending in the application. 4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-15 is/are rejected. 7) Claim(s) is/are objected to. 8) Claims are subject to restriction and/or election requirement.
4a) Of the above claim(s) 38-54 and 68-83 is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) ☑ Claim(s) 1-15 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claims are subject to restriction and/or election requirement.
5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 1-15 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claims are subject to restriction and/or election requirement.
6)⊠ Claim(s) <u>1-15</u> is/are rejected. 7)□ Claim(s) is/are objected to. 8)□ Claims are subject to restriction and/or election requirement.
7) Claim(s) is/are objected to. 8) Claims are subject to restriction and/or election requirement.
8) Claims are subject to restriction and/or election requirement.
Application Papers
Application rapers
9) The specification is objected to by the Examiner.
10) The drawing(s) filed on is/are objected to by the Examiner.
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved.
12)☐ The oath or declaration is objected to by the Examiner.
Priority under 35 U.S.C. § 119
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.
14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
THILL Additionledgement is made of a dialith for domestic phonty under 35 0.0.0. 3 110(c).
Attachment(s)
15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). 19) Notice of Informal Patent Application (PTO-152) 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.11. S. Patent and Trademark Office

Art Unit: 1723

DETAILED ACTION

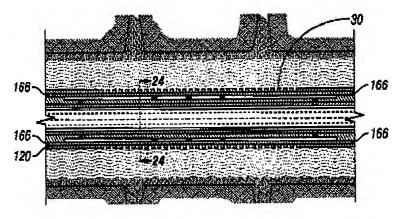
Claim Rejections - 35 USC ' 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

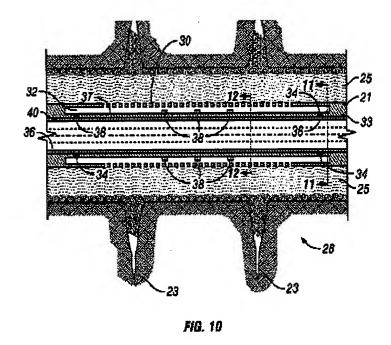
A person shall be entitled to a patent unless -(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or
on sale in this country, more than one year prior to the date of application for patent in the United States.
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
patent by another filed in the United States before the invention by the applicant for patent, except that an
international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

- 2. Claims 1-4, 7 and 9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Brockman (U.S. 6,505,682 B2). As disclosed in col. 2, Brockman teaches at least one line embedded in a sidewall of a well screen.
 - cation with downhole tools. By embedding the communication infrastructure within the casing 21, the infrastructure is protected from being damaged by contact with other objects (e.g., a production tubing or sucker rods used to actuate a downhole pump) inside of a central passageway of the casing 21.

Figures 23 and 10 are reproduced below.



Art Unit: 1723



As shown above, line 166 of Brockman is embedded in the sidewall 33 of the well screen [as in claim 1] and extends longitudinally therein [as in claim 2] wherein the sidewall material can be nonmetallic (i.e. plastic) or a be a composite [as in claims 4 and 7] as taught in col. 3 reproduced below.

sealed) to the outer surface of the tubing 40. The encapsulant 33 may be formed from such materials as a plastic or a soft metal (e.g., lead). The encapsulant 33 may also be a composite material. The tubing 40 is formed out of a material (e.g., metal or a composite) that is flexible but capable of structurally supporting of the well bore.

Brockman also teaches sensors 38 [as in claim 9] in communication with a controller (50 or 150) for measuring parameters within or without the well screen [as in claims 10-11] and controlling flow control devices (e.g. pumps or valves 34) [as in claims 13], wherein such devices inherently include an actuating device (e.g. the magnetic part of the solenoid valve) [as in claim 12] and

Art Unit: 1723

wherein the lines can be fluids lines 166, electrical lines 164 and conduit lines 167 and are for monitoring well conditions [as in claims 14 and 15]. See also col. 5, lines 4-19 and 29-50.

As for claim 3, the casing of Brockman can be made of multiple layers and including an encapsulant 301 circumscribing the encapsulant 33, wherein the filtering material 30 would be recessed into the side wall [as in claim 3] as taught in col. 6 reproduced below.

The casing 21 may be laminated by multiple layers. For example, as shown in FIG. 25, another layer of encapsulant 301 circumscribes and is secured to the encapsulant 33. The encapsulant 301 has embedded shaped charges 300 which might be actuated, for example, by one of the electrical lines 166.

Claim Rejections - 35 USC ' 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.

Ascertaining the differences between the prior art and the claims at issue.

Resolving the level of ordinary skill in the pertinent art.

Considering objective evidence present in the application indicating obviousness or nonobviousness.

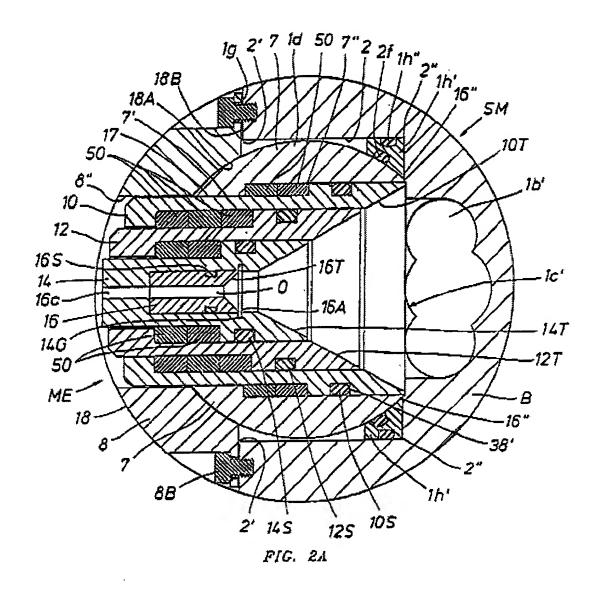
Page 5

Art Unit: 1723

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Donnelly et al. (U.S. 5,901,789), hereinafter "Donnelly". Claim 8 has the limitation of an expandable filter media. Donnelly teaches an expandable filter media (compare figures 1 and 2) [as in claim 8]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention for the well screen of Brockman to include the expandable media of Donnelly, since Donnelly teaches the benefit of a fairly constant sieve opening size even though the screen be deformed during installation and use (see abstract, col. 1 lines 20-25 and 40-45).

- 5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Jones (U.S. 5,842,516). Claim 5 has the limitation of tubular protective shield lining in flow passages through the sidewall. Jones teaches inserts 29a that are tubular protection flow passage linings [as in claim 5]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the inserts of Jones in the flow passages of Brockman since Jones teaches the benefit of protection from erosion (abstract).
- 6. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brockman in view of Jordan et al. (U.S. 5,765,756), hereinafter "Jordan". Jordan teaches a jet nozzle flow passage for delivering fluids to a well bore. Figure 2A thereof is reproduced on the next page.

Art Unit: 1723



As shown above Jordan teaches "tubular protective sleeves" e.g. 10, 12 or 14 in a flow passage [as in claim 5] that includes flexible retainers, e.g. elements 50 [as in claim 6]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the jet nozzles of Jordan in the sidewall of Brockman, since Jordan teaches the benefit of delivering cleaning chemicals to a well bore (col. 1, lines 5-15 and col. 25, line 65). It is pointed

Application/Control Number: 09/758,625 Page 7

Art Unit: 1723

out that Brockman teaches fluid lines 166 for delivering chemicals (col. 6, lines 46-56) to the well bore and for communicating with downhole tools (col. 2, lines 40-50) and is therefor conducive to modification by Jordan.

Response to Arguments

7. Applicant's arguments filed 10-9-2002 with respect to the claims have been considered but are most in view of the new grounds of rejection.

Election/Restrictions

8. Applicant's election of Species I, claims 1-15 in Paper No. 13 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)) and the restriction requirement is made FINAL.

Art Unit: 1723

9. Contact Information:

• Examiner Mr. Terry K. Cecil can be reached at (703)305-0079 for any inquiries concerning

this communication or earlier communications from the examiner. Note that the examiner is

on the increased flextime schedule but can normally be found in the office during the hours

of 8:00a to 4:30p, on at least four days during the week M-F.

• The group receptionist can be reached at (703)308-0661 for inquiries of a general nature or

those relating to the status of this or proceeding applications.

• Wanda Walker, the examiner's supervisor, can be reached at (703)308-0457 if attempts to

reach the examiner are unsuccessful.

• Fax numbers for this art unit are as follows:

i. (703)872-9310 for official faxes (i.e. faxes to be entered as part of the file history) that

are not after-final; and

ii. (703)872-9311 if after-final.

Examiner Terry Cecil A.U. 1723

Page 8

TKC

January 28, 2003